**Hardware Networking**

**TERM-1 A+ Assignment**

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**Module 1 [Hardware and its components]**

**Topic : Visible Computer**

**1.What is hardware?**

Hardware is the physical components of a computer, such as the motherboard, processor, memory, storage drives, and other devices. It is the hardware that hosts and supports software or programs that provide instructions for the computer to complete its tasks. Hardware can also include external input/output devices such as keyboards, mice, monitors, printers, and speakers.

**2.what is the purpose of hardware?**

The purpose of computer hardware refers to the various electronic components that are required for you to use a computer along with the hardware components inside the computer case. As you know your computer equipment is made of several common components

**3. list out two types of hardware**

**these are the 2 types of hardware :**

**>1.central processing Unit (CPU)**

**>2.graphics processing unit (GPU)**

**>1.Central Processing Unit(CPU)** : The CPU is often considered the brain of the computer. It performs calculations, executes instructions, and manages data movement within the computer system. CPUs come in different architectures and speeds, with variations in the number of cores and cache sizes. Modern CPUs also often include integrated graphics processing units (GPUs) and support for various instruction sets

**>2.Graphics processing unit(GPU):** GPUs are specialized processors designed to accelerate graphics rendering and processing tasks. Originally developed for rendering images and videos, GPUs have evolved to handle a wide range of parallel processing tasks, including scientific simulations, machine learning, and cryptocurrency mining. They excel at processing large amounts of data simultaneously, making them essential for high-performance computing applications.

**⟫What is core hardware**

Core hardware typically refers to essential components of a computer system that are fundamental to its operation. These components form the foundational infrastructure upon which other hardware and software operate. Core hardware typically includes:

1. Central Processing Unit (CPU): As mentioned earlier, the CPU is the primary component responsible for executing instructions and performing calculations within the computer. It is often considered the "brain" of the system.

2. Memory (RAM): Random Access Memory (RAM) is the volatile memory in a computer system that temporarily stores data and program instructions that the CPU needs to access quickly. It provides the workspace for the CPU to perform tasks efficiently.

3. Motherboard: The motherboard is the main circuit board of a computer. It provides the electrical connections and pathways that allow various components, such as the CPU, RAM, storage devices, and peripherals, to communicate with each other.

4. Storage Devices: Core hardware includes storage devices such as Hard Disk Drives (HDDs), Solid State Drives (SSDs), or other storage mediums where data is permanently stored.

5. Power Supply Unit (PSU): The PSU converts electrical power from an external power source into usable power for the computer's components. It supplies power to the CPU, motherboard, storage devices, and other peripherals.

These core hardware components form the essential infrastructure of a computer system, enabling it to perform tasks and run software applications. Other hardware components, such as graphics cards, network adapters, and peripherals, may complement these core components but are not considered core hardware themselve

**Topic : Category Of Components**

**1.What are the category of components in hardware ?**

There are four main computer hardware components that this blog post will cover: input devices, processing devices, output devices and memory (storage) devices. Collectively, these hardware components make up the computer system.

**2.Why category is needed ?**

Categories enable us to relate things to each other in terms of similarity and dissimilarity and are involved whenever we perceive, communicate, analyze, predict, or classify. Without categories, we would perceive the world as an unorganized blur of things with no understandable or memorable relation to each other.

**Topic : Input Device**

**1.What is input device?**

In computing, an input device is a piece of equipment used to provide data and control signals to an information processing system, such as a computer or information appliance. Examples of input devices include keyboards, computer mice, scanners, cameras, joysticks, and microphones.

**2. Why input device is needed?**

Input devices are essential to the overall functionality of a computer because they allow users to add, edit, or feed a new set of data or instructions to the computer. Input devices enable users to interact with the computer by either inputting numerals, characters, or gaming instructions into the computer.

**3. List out the input device?**

Keyboard,

Mouse.

Joy Stick.

Light Pen.

Microphone.

Scanner.

Barcode Reader.

**Topic : Output Device**

**1.What are output device?**

An output device is any piece of computer hardware that converts information or data into a human-perceptible form or, historically, into a physical machine-readable form for use with other non-computerized equipment. It can be text, graphics, tactile, audio, or video.

**2. How does output device work ?**

An output device is a piece of hardware used to receive data from the computer and convert it into a human-perceptible form. An example of an output device is a set of speakers. They take the data from the computer and turn it into an audible sound.

**3.list out the output device?**

Printer.

Monitor.

Projector.

Plotter.

DVD o CD-ROM.

Headphones.

Sound Card.

Video Card.

**Topic: Motherboard**

**1.What is motherboard?**

A motherboard is the main printed circuit board (PCB) in a computer. The motherboard is a computer's central communications backbone connectivity point, through which all components and external peripherals connect. Motherboards can be found in virtually all computers, especially desktop and laptop PCs.

**2.Why it is called motherboard?**

It's called a motherboard because it's the main circuit board. Much like the term “mothership,” the word motherboard signifies its essential nature. Additional circuit boards can be plugged into a motherboard, and these are known as “daughterboards.”

**3.What it is called if we remove all components from the motherboard?**

Disassembling the PC: Before you can replace the motherboard, you'll need to disassemble the PC case and remove all of the components, including the power supply, hard drive, graphics card, and any other peripherals.

**4.Describe type of motherboard ?**

Motherboards come in different sizes, known as form factors. The most common motherboard form factor is ATX. The different types of ATX are known as micro-ATX (sometimes shown as µATX, mini-ATX, FlexATX, EATX, WATX, nano-ATX, pico-ATX, and mobileATX).

**Topic : CPU**

**1.What is CPU?**

A central processing unit is the most important processor in a given computer. Its electronic circuitry executes instructions of a computer program, such as arithmetic, logic, controlling, and input/output operations.

**2.Write the full form of CPU?**

The full form of CPU is Central Processing Unit. The CPU's known as the brain of a computer.

**3. What are the types of CPU?**

1. Single-Core CPU

2. Dual Core CPU

3. Quad Core CPU

4. Hexa Core CPU

5. Octa Core CPU

6. Deca Core CPU

**4.What do we need to keep the CPU healthy?**

Restart your computer at least once a week.

Hygiene your Programs.

Defrag your hard drive.

Investigate Startup programs.

Install Antivirus Software.

Use an Anti-Surge Protection Extension.

Back-Up Your Files.

Prevent over heating.

Clean your fans.

Stay alert.

**Topic : Monitor**

**1.What is Monitor?**

A monitor is an output device that displays information being processed in a computer. It is also known as VDU or Visual display unit. The first monitor was developed on 1 March 1973 and it was a CRT monitor. The LED monitor was first introduced in 2008 and is the least power-consuming mode of display.

**2.list out the types of monitor?**

**5 types of monitors available today**

LCD monitor. LCD stands for Liquid crystal display and is the most widely used monitor in the world.

LED monitor. An LED (Light Emitting Diode) display is among the newest techs out there and can be flat or curved.

OLED monitor.

CRT monitor.

Plasma monitor.

**3.What are the technologies used in monitor?**

Monitors, also known as displays or screens, utilize various technologies to produce images and display information. The primary technologies used in monitors include:

1. LCD (Liquid Crystal Display):

- Twisted Nematic (TN): This is one of the oldest and most common types of LCD panels. TN panels are known for their fast response times but generally have poorer color reproduction and viewing angles compared to other types.

- In-Plane Switching (IPS): IPS panels offer superior color reproduction and wider viewing angles compared to TN panels. They are widely used in professional monitors and displays requiring accurate color representation.

- Vertical Alignment (VA): VA panels offer better contrast ratios compared to both TN and IPS panels. They provide deeper blacks and better viewing angles than TN panels but may suffer from slower response times in some cases.

2. LED (Light Emitting Diode) Backlighting:

- Edge-lit LED: In this configuration, LEDs are placed around the edges of the display panel. This design allows for thinner monitors but may result in uneven backlighting.

- Direct-lit LED: LEDs are placed directly behind the LCD panel, providing more uniform backlighting. This design is commonly found in larger monitors and TVs.

- Full-Array LED: This design uses LEDs distributed across the entire back of the display, offering even better uniformity and control over local dimming.

3. OLED (Organic Light Emitting Diode):

- OLED displays use organic compounds that emit light when an electric current is applied. OLED panels offer superior contrast ratios, wider viewing angles, and faster response times compared to LCD panels. They are commonly used in high-end smartphones, TVs, and some monitors.

4. \*\*Curved Displays\*\*:

- Curved monitors feature a gently curved screen designed to match the natural curvature of the human eye. This design aims to provide a more immersive viewing experience and reduce eye strain.

5. Refresh Rate and Adaptive Sync Technologies:

- Refresh Rate: This refers to the number of times the display updates per second, measured in Hertz (Hz). Higher refresh rates, such as 144Hz or 240Hz, can provide smoother motion and reduce motion blur, especially in fast-paced gaming.

- Adaptive Sync Technologies (e.g., NVIDIA G-SYNC, AMD FreeSync)\*\*: These technologies synchronize the display's refresh rate with the frame rate of the graphics card to eliminate screen tearing and stuttering, providing a smoother gaming and viewing experience.

6. Resolution:

- The resolution of a monitor refers to the number of pixels it can display horizontally and vertically. Common resolutions include Full HD (1920x1080), Quad HD (2560x1440), and 4K Ultra HD (3840x2160). Higher resolution monitors offer sharper and more detailed images.

7. Touchscreen Technology:

- Some monitors feature touchscreen capabilities, allowing users to interact with the display using touch gestures. Common touchscreen technologies include resistive, capacitive, and infrared.

8. HDR (High Dynamic Range):

- HDR technology enhances the contrast and color accuracy of a display, resulting in brighter highlights, darker shadows, and more vibrant colors. HDR-compatible monitors can reproduce a wider range of brightness levels and colors, providing a more lifelike and immersive viewing experience.

These are some of the key technologies used in monitors. The choice of technology depends on the intended use of the monitor, such as gaming, professional work, content creation, or general productivity.

**4.Describe how does the crt monitor works?**

CRTs Are Lit Using Electron Beams

The CRT in a TV is a glass vacuum tube. The inner surface of the screen is coated with tiny phosphor dots that emit light in the three primary colors (red, green, and blue). These phosphor dots glow when struck by an electron beam, resulting in the images we see on screen.

**Topic : System bus**

**1.What is system bus?**

A system bus is a single computer bus that connects the major components of a computer system, combining the functions of a data bus to carry information, an address bus to determine where it should be sent or read from, and a control bus to determine its operation.

**2.list out the types of system bus?**

**Three types of bus are used.**

Address bus - carries memory addresses from the processor to other components such as primary storage and input/output devices.

Data bus - carries the data between the processor and other components.

Control bus - carries control signals from the processor to other components.

**3.Describe the working of system bus?**

A system bus is a single computer bus that connects the major components of a computer system, combining the functions of a data bus to carry information, an address bus to determine where it should be sent or read from, and a control bus to determine its operation.

**Topic : Chipset**

**1.What is chipset?**

In a computer system, a chipset is a set of electronic components on one or more integrated circuits that manages the data flow between the processor, memory and peripherals. The chipset is usually found on the motherboard of computers. Chipsets are usually designed to work with a specific family of microprocessors.

**2.What are the types of chipset?**

INTEL

AMD

PROCESSORS

SOUTHBRIDGE

VIA

**3.Which chipset does have a direct contact with the CPU?**

The Northbridge connects to the CPU, memory, and graphics card, while the southbridge connects to input/output devices such as the hard drive, USB ports, and audio devices.

**4.Describe how does the North bridge chipset work?**

The northbridge handles the high-speed communication between the CPU, memory, and graphics card, while the southbridge manages the slower input/output (I/O) operations and connects devices like hard drives (HD), universal serial bus (USB) devices, and audio interfaces.

**Topic : Memory**

**1.What is memory?**

Memory is the process of taking in information from the world around us, processing it, storing it and later recalling that information, sometimes many years later. Human memory is often likened to that of a computer memory system or a filing cabinet.

**2. What are the types of memory?**

The four general types of memories are sensory memory, short-term memory, working memory, and long-term memory. Long-term memory can be further categorized as either implicit (unconscious) or explicit (conscious).

**3.Describe memory in detail?**

Memory refers to the psychological processes of acquiring, storing, retaining, and later retrieving information. There are three major processes involved in memory: encoding, storage, and retrieval. Human memory involves the ability to both preserve and recover information. However, this is not a flawless process.

**4. What are memory types?**

**Most scientists believe there are at least four general types of memory:**

working memory.

sensory memory.

short-term memory.

long-term memory.

**Topic : System Unit**

**1.what is system unit ?**

A computer case, also known as a computer chassis, is the enclosure that contains most of the hardware of a personal computer. The components housed inside the case are referred as the internal hardware, while hardware outside the case are known as peripherals.

**2.How does system unit work ?**

A system unit is the main box-like structure of a computer with all the essential components needed for the computer to work. Inside the system unit, you'll find the brain of the computer called the CPU (or central processing unit), the main circuit board (known as the motherboard), and RAM (random access memory).

**3.What are the components and system unity ?**

The Entity Component System (ECS) is the core of the Unity Data-Oriented Tech Stack. As the name indicates, ECS has three principal parts: Entities the entities, or things, that populate your game or program. Components the data associated with your entities, but organized by the data itself rather than by entity.

**Topic : BIOS**

**1.What is BIOS?**

BIOS is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

**2.What is the full form of BIOS?**

The full form of BIOS is the Basic Input Output System. BIOS is software built in to a computer. As we switch on the computer, the program is operated. Typically this program is housed in Read-Only Memory (ROM), and is placed on the motherboard.

**3.Describe working process of BIOS?**

BIOS (basic input/output system) is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system (OS) and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

**Topic : CMOS**

**1.What is CMOS?**

Complementary metal oxide semiconductor is a type of metal oxide semiconductor field-effect transistor fabrication process that uses complementary and symmetrical pairs of p-type and n-type MOSFETs for logic functions.

**2.What is the full form of CMOS?**

The full form of CMOS is Complementary Metal-Oxide-Semiconductor. CMOS is an integrated circuit built on a printed circuit board. It is a battery-powered memory chip that effortlessly holds the initialisation data.

**3.Describe the working process of CMOS?**

In CMOS logic gates, we use a complementary structure in which one transistor acts as a load to the other transistor. The NMOS transistors are designed to work as positive logic elements, while PMOS works as negative logic elements. It means that both the transistors in a CMOS perform complementary logic functions.

**4.How do we know that CMOS is not working?**

The most common symptom of CMOS battery failure is incorrect or slow system date and time in the BIOS, loss of BIOS settings when the computer is powered off, time-of-day clock stopped error message and so on. If the CMOS battery is out of charge, the BIOS settings will be lost when the computer is powered off.

**Topic : Boot process**

**1.What is boot process?**

In computing, booting is the process of starting a computer as initiated via hardware such as a button on the computer or by a software command. After it is switched on, a computer's central processing unit has no software in its main memory, so some process must load software into memory before it can be executed.

**2.What is the first process of boot?**

Booting Process in Operating System. Step 1: Once the computer system is turned on, BIOS (Basic Input /Output System) performs a series of activities or functionality tests on programs stored in ROM, called on POST (Power-on Self Test) that checks to see whether peripherals in the system are in perfect order or not.

**3.What is the final stage in the boot process?**

Answer and Explanation: At the later stages of the boot sequence, the operating system is loaded from the hard disk to the primary memory (RAM) to perform necessary tasks. Then, at the last stage, full control of hardware and machine is granted to the OS so that it can look after all the operations.

**4.Describe the boot process in Linux?**

During the boot process, the computer's firmware (such as BIOS or UEFI) takes charge and sets up all the necessary hardware components, including the processor, memory, storage devices, and peripherals. This crucial initialization stage guarantees that these components are fully prepared for the operating system's use.

**5.Describe about working with the grub bootloader?**

GRUB (also known as GNU GRUB or GNU Grand Unified Bootloader) is a bootloader and boot manager for Linux and other Unix-based OSes. GRUB starts after BIOS finishes the necessary hardware tests and loads it from the Master Boot Record (MBR). Once loaded, GRUB takes control of the system and loads the Linux kernel.

**6.Describe working process of boot loader?**

The bootloader mainly works in initializing OBC hardware, receiving boot commands from the ground, and making the operating system and application of the OBC run well. The bootloader is solidified on the PROM of the satellite and is important for OBC applications.

**Topic : SMPS**

**1.What is SMPS?**

A switched-mode power supply, also called switching-mode power supply, switch-mode power supply, switched power supply, or simply switcher, is an electronic power supply that incorporates a switching regulator to convert electrical power efficiently.

**2.What is the process of SMPS?**

In switching power supply designs, the input voltage is no longer reduced; instead, it's rectified and filtered at the input. Then the voltage goes through a chopper, which converts it into a high-frequency pulse train. Before the voltage reaches the output, it's filtered and rectified once again.

**3.How many sata connectors are there in normal SMPS?**

**4.How many pins does atx power connector have ?**

1 ATX 24-pin connector

It has 24 pins, arranged in two rows of 12. Some older motherboards may have a 20-pin connector instead, in which case you can use an adapter or a PSU that has a 20+4-pin connector that can split into two parts. The ATX 24-pin connector is keyed, which means it can only fit in one way.

**Topic : RAM**

**1.What is RAM?**

Random-access memory is a form of electronic computer memory that can be read and changed in any order, typically used to store working data and machine code.

**2.What is the full form of RAM?**

RAM stands for random access memory, and it's one of the most fundamental elements of computing. RAM is a temporary memory bank where your computer stores data it needs to retrieve quickly.

**3.What are the types of RAM?**

There are two main types of RAM: Dynamic RAM (DRAM) and Static RAM (SRAM). DRAM (pronounced DEE-RAM), is widely used as a computer's main memory. Each DRAM memory cell is made up of a transistor and a capacitor within an integrated circuit, and a data bit is stored in the capacitor.

**Topic : Device and Cable**

**1.What are the types of devices?**

input devices, processing devices,output devices and memory (storage) devices.

**2.What are the types of cable?**

types are coaxial cables, twisted pairs, optical fibers, patch cables, power cables, data cables, etc.

**3.What cables are used to connect printer?**

A USB cable connects your printer to your computer, so you have a direct connection every time you print. The majority of printers are compatible with a USB 2.0 A/B cable. The "A" side of the cable plugs into the USB port on your computer and the "B" side plugs into the back of the printer.

**4.What was the first cable founded by Apple for data transfer?**

Apple introduced the lightning cable for the first time in the year 2012 in the iPhone 5. It was a huge shift from the connectors used before. Apple decided to reduce the size of the port by 80 per cent which had two obvious benefits.

**Topic : EXPLANATION CARD AND SLOTS**

**1.Why expansion card needed?**

An expansion card, also known as an expansion board or add-on card, is a hardware component that you can insert into a computer's expansion slot to enhance its functionality. These cards provide additional features and capabilities that the computer's basic configuration may not have initially included.

**2.Why expansion slots needed?**

An expansion slot is a socket on a computer motherboard that allows you to add additional components to your system. These slots are used to expand the capabilities of your computer and can be used to add new functionality to your system.

**3.What are the types of expansion cards?**

Sound cards. Sound cards expand the sound capabilities of a PC.

Video cards. Video cards can increase the overall performance of a system, depending upon the card that is installed.

Network cards.

Serial and parallel cards.

USB cards.

FireWire cards.

Storage cards.

Modem cards.

**4.What are the types of expansion slots?**

Types of expansion slots include peripheral component interconnect (PCI), PCI express (PCIe), accelerated graphics port (AGP), and industry standard architecture (ISA).

**Topic : I/O Ports**

**1.What is I/O ports?**

A computer port is a hardware piece on a computer where an electrical connector can be plugged to link the device to external devices, such as another computer, a peripheral device or network equipment.

**2.list out the I/O ports available?**

**Input Output Ports/ Connections**

Serial.

Parallel and Universal Serial Bus.

PS-2 Port.

Infrared Port.

Bluetooth Port.

Firewire.

**Topic : BIOS AND CMOS**

**1.What is BIOS?**

BIOS is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

**2.What is CMOS?**

Complementary metal–oxide–semiconductor is a type of metal–oxide–semiconductor field-effect transistor fabrication process that uses complementary and symmetrical pairs of p-type and n-type MOSFETs for logic functions.

**3.What is the role of BIOS in I/O?**

The main use of BIOS is to act as a middleman between OSes and the hardware they run on. BIOS is theoretically always the intermediary between the microprocessor and I/O device control information and data flow.

**4.What is the role of CMOS in I/O?**

CMOS is a type of semiconductor technology used to build integrated circuits. In the context of computer systems, CMOS refers to a small amount of low-power, non-volatile memory that stores crucial system configuration settings, such as date, time, hardware settings, and system parameters.

**Topic : LAPTOP & STORAGE**

**1.What is laptop?**

A laptop, sometimes called a notebook computer by manufacturers, is a battery or AC powered personal computer smaller than a briefcase. A laptop can be easily transported and used in temporary spaces such as on airplanes, in libraries, temporary offices and at meetings.

**2.Why laptop is widely used now a days ?**

Laptops are used in a variety of settings, such as at work (especially on business trips), in education, for playing games, web browsing, for personal multimedia, and for general home computer use.

**3.Describe the working process of laptop?**

Laptops combine all of the input and output capabilities and components of a desktop computer, including its display screen, keyboard, speakers, data storage, disc drives, and pointing devices (a touchpad or a trackpad), with a processor and operating system into a smaller device.

**4.What is storage?**

Storage is a process through which digital data is saved within a data storage device by means of computing technology.

**5.list out the types of storage?**

1.Primary Storage Devices

2.Magnetic Storage Devices

3.Flash memory Devices

4.Optical Storage Devices

5.Cloud and Virtual Storage

6.HDD

7.SSD

**Topic : PRINTER**

**1.What is printer?**

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard-size, 8.5" by 11" sheets of paper.

**2.Why is printer needed?**

In general, the printer is a hardware device that is used to get a hard copy of a document or a file. It can be used for: getting the printout of important documents. to prepare projects in schools or colleges.

**3.Describe the working process of printer?**

A printer works by sending electronic signals from the computer to the printer's control board. The control board then interprets these signals into instructions for the print head or toner cartridge. The print head or toner cartridge prints the document or image onto paper.

**4.What are the types of printer?**

1.Multifunction printers

2.Digital Printers

3.Ink-jet Printers

4.Screen Printers

5.Embossing Machines

6.Flexographic Printing Machine

7.Letterpress Printing Machines

8.Offset Printers

9.Laser printers

10.Dot Matrix printers

**Topic : STORAGE DEVICES**

**1.What is storage device?**

The storage devices are the components of a computer system that holds data and orders that will be analysed. Secondary storage is a component of computer hardware that stores data to process the results of computing activity. A system will not allow functioning or even load up without a storage device.

**2.Why we need storage device?**

A storage device is a hardware component that allows you to store and retrieve digital information on your computer. It provides a means to store data, such as documents, photos, videos, and software, for later use.

**3.List out the types of storage device?**

RAM , ROM , Floppy disk , Hard disk , Magnetic disk , Pen drive , SSD , Sd card.

**4.Describe the working process of storage devices?**

Hard disk drives are the traditional, mechanical storage devices found in most computers. They use rapidly rotating disks coated with a magnetic material to store data. Data is read and written using magnetic heads that move over the spinning disks' surface.

**Topic : ATA**

**1.What is ATA ?**

An analog telephone adapter (ATA) is a device used to connect an analog telephone, fax machine or similar equipment to a computer or network to enable communications over the internet.

**2.Describe working of ATA?**

ATA is a standard physical interface for connecting storage devices within a computer. ATA allows hard disks and CD-ROMs to be internally connected to the motherboard and perform basic input/output functions.

**Topic : SATA**

**1.What is SATA?**

SATA is a computer bus interface that connects host bus adapters to mass storage devices such as hard disk drives, optical drives, and solid-state drives. Serial ATA succeeded the earlier Parallel ATA standard to become the predominant interface for storage devices.

**2.Describe the working of SATA?**

SATA is a command and transport protocol that defines how data is transferred between a computer's motherboard and mass storage devices, such as hard disk drives (HDDs), optical drives and solid state drives (SSDs).

**3.Where does SATA is used?**

SATA stands for Serial Advanced Technology Attachment, an industry standard bus interface for connecting a computer's host bus adapter to storage devices such as hard disk drives (HDD), optical drives and solid-state drives (SSD). SATA cables are typically used inside a computer's case.

**Topic : SCSI**

**1.What is SCSI?**

SCSI is used to connect and communicate between computers and peripheral devices, such as hard disk drives, tape drives, CD/DVD drives, and scanners. SCSI was originally developed as both a protocol and a parallel physical interface.

**2.Why SCSI needed?**

SCSI is used to connect and communicate between computers and peripheral devices, such as hard disk drives, tape drives, CD/DVD drives, and scanners. SCSI was originally developed as both a protocol and a parallel physical interface.

**3.What is the rpm of SCSI?**

SCSI Hard Drive 80-Pin 10K 15k RPM Ultra320, For Server, Size: 3.5.

**Topic : LAPTOP**

**1.What is laptop?**

A laptop, sometimes called a notebook computer by manufacturers, is a battery or AC powered personal computer smaller than a briefcase. A laptop can be easily transported and used in temporary spaces such as on airplanes, in libraries, temporary offices and at meetings.

**2.What are the types of laptop?**

Ultrabooks

MacBook

Acer laptops

Chromebook

Netbook

Subnotebook

**3.Different names of laptop?**

Asus

Acer

Lenovo

Hp

Apple

Dell

Microsoft

Samsung

**4.What are the parts of laptop?**

The parts of laptop include display screen, keyboard, base panel, top panel, Cooling Fan, RAM, hard disk, palm rest assembly, battery, hinges, speaker, optical drive, antenna etc.

**Topic : PRINTER**

**1.What is printer?**

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper.

**2.Is It a input device or output device ?**

Printer is an output device, which is used to print information on paper. The printed output produced by a printer is often called a hard copy, which is the physical version of an electronic document.

**3.Describe the types of printer?**

Laser Printer , Photo printer , Color Printer , Inkjet Printer , Dot Matrix printers , Digital Printer.

**4.Describe inkjet printer?**

An inkjet printer is a computer peripheral that produces hard copies of a text document or photo by spraying droplets of ink onto paper.